

UNIVERSITY OF  
WOLLONGONG



# Subject Outline

**EESC215**

**Environmental Impact of  
Societies**

**Faculty of Science,  
Medicine and Health**

**School of Earth and  
Environmental  
Sciences**

**Spring**

**2013**

## Subject Outline

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<b>Subject code:</b>	EESC215
<b>Subject name:</b>	Environmental Impact of Societies
<b>Credit points:</b>	8
<b>Pre/co-requisites:</b>	12 credit points of any 100-level subjects
<b>Mode of delivery:</b>	On Campus
<b>Delivery location:</b>	Wollongong

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3 <sup>rd</sup> edition	Leah Gibbs, Faculty of Science , UOW	2012
2 <sup>nd</sup> edition	Leah Gibbs, Faculty of Science, UOW	2011
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The University of Wollongong attempts to ensure that the information contained here is correct at the time of production, however, sections may be amended without notice by the University in response to changing circumstances or for any other reason.

## Contacts

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### Subject Co-ordinator

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### Consultation mode and times:

Lecturer	Office	Phone	Email	Consultation times
Dr Leah Gibbs	41.G11	4298 1547	leah@uow.edu.au	By appointment

# Subject Information

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## Outline

Welcome to EESC215. The major focus of this subject is to provide an understanding of the environmental impacts that societies have on the earth and its processes. We look at prehistoric and more recent time scales, and a range of spatial scales from the global to the local. Topics include early human impacts; hunter-gatherers, fire and extinctions; early agriculture; cities and industrial development; global climate change; and contemporary Australian environmental issues in a global context. Practical classes are designed to complement the lecture program, focusing on skills development.

## Learning Outcomes

Through successful completion of this subject students should be able to:

1. understand the major phases in the history of human-environment interaction;
2. understand some of the major environmental challenges confronting modern society, especially Australian society;
3. critically review scholarly literature and materials from other sources relating to human-environment relations;
4. work effectively in groups
5. present ideas verbally in front of a group with some confidence.

## Faculty Graduate Qualities

Valuable qualities gained by UOW graduates are essential for gaining employment and making an important contribution to society and their chosen field – further information is available at <http://www.uow.edu.au/about/teaching/qualities/>. Engagement in this subject will contribute to each student's development of the following UOW Graduate Qualities:

### Informed

- Comprehensive knowledge of an area of Science and well-developed skills in using relevant technologies
- Awareness of the international context in which advances in Science are made and applied

### Independent learners

- Critical thinking skills
- Scientific approach to the acquisition, analysis, and interpretation of data

### Independence in seeking to extend knowledge through ongoing research, enquiry and reflection

- Problem solvers
- Application of creative, logical and critical thinking to scientific problems

### Effective communicators

- Well-developed written, oral & aural communication
- Effective collaboration and teamwork across a range of settings and cultures

### Responsible

- Ethical decision making
- Respect for diverse opinions, professions, and cultures

## Lecture and Practical Times

Refer to <http://www.uow.edu.au/student/timetables/index.html> for an up-to-date timetable.

	Activity	Day	Start	Finish	Location	Week
	Lecture	Monday	10:30	11:30	20.2	All weeks
And	Lecture	Wednesday	11:30	12:30	38.G01	All weeks
And	Practical	Monday	11:30	1:30	41.157	Not first week
Or	Practical	Monday	14:30	16:30	41.157	Not first week
Or	Practical	Thursday	1:30	15:30	41.157	Not first week
Or	Practical	Thursday	15:30	17:30	41.157	Not first week

## Study Time

Students should note that UOW policy equates 1 credit point with 2 hours of study per week that includes lectures and tutorials. For example, in a 6 credit point subject, a total of 12 hours of study per week is expected.

## Prescribed Reading

We recommend that you refer regularly to two texts, and if possible buy your own copy:

- Goudie, A. 2013. *The Human Impact on the Natural Environment. Past, Present and Future*. Blackwell Publishing, Oxford.
- Hay, I. 2012 *Communicating in Geography and the Environmental Sciences*. Oxford University Press, Melbourne.

## Recommended Readings

See the back of this subject outline for a week-by-week list of recommended readings. An extended reading list is available on e-Learning.

The recommended readings are not intended as an exhaustive list and students should use the Library catalogue and databases to locate additional resources.

## e-Learning

This subject has materials and activities available via eLearning. To access eLearning you must have a UOW user account name and password, and be enrolled in the subject. eLearning is accessed via SOLS (student online services). Log on to SOLS and then click on the eLearning link in the menu column.

For information regarding the eLearning spaces please use the following links:  
Blackboard Vista - <http://www.uow.edu.au/student/elearning/vista/index.html>.

Moodle - [http://uowblogs.com/moodlelab/files/2013/05/Moodle\\_StudentGuide-1petpo7.pdf](http://uowblogs.com/moodlelab/files/2013/05/Moodle_StudentGuide-1petpo7.pdf)

# Lecture Schedule

Week	Beginning	Lecture topics	Practical topics	Due dates & Notes
<b>Part 1 Human impacts: a long term perspective</b>				
1	29th July	Introduction to the subject What are 'impacts'?	No practical classes	
2	5th Aug	First human impacts: Vegetation & fire; Animals & extinctions	Intro. to practicals and assessment tasks. Research skills and annotated bibliographies	<u>Note:</u> Bring your Subject Outline and Prac. Book to prac. class
3	12th Aug	Early agriculture; Contemporary food production	Environmental impacts of food production	
4	19th Aug	Early cities; Industrialisation	Food miles	Task 1: Annotated bibliography
<b>Part 2 Contemporary challenges and opportunities</b>				
5	26th Aug	Modernity & urbanisation; Contemporary urban environmental issues	The shopping bag dilemma	
6	2nd Sept	Climate change	Carbon emissions and daily decisions	<u>Note:</u> Sign up for debates via Moodle
7	9th Sept	Sustainability and the city; <i>Guest lecture (Wed)</i> <i>Eliza de Vet</i>	Housing retrofit	
8	16th Sept	Urban agriculture <i>Guest lecture (Mon)</i> <i>Dr Catherine Phillips;</i> Indigenous land management	Mapping spaces of environmental sustainability	Task 2: Essay <u>Note:</u> Be prepared for working outside in prac. class
9	23rd Sept	Measuring impacts; Managing impacts	Environmental footprints	<u>Note:</u> Preparation work required for this prac. class
<b>Mid-session recess</b>				
<b>Part 3 Key issues – Rethinking 'impacts'</b>				
10	7th Oct (Public Holiday)	<i>No lecture Monday;</i> Rethinking impacts	Independent work – preparation for oral presentations	Task 3: Debate summaries
11	14th Oct	Key issues: Water; Key issues: Food <i>(Dr Catherine Phillips)</i>	Debates	Task 3: Debates
12	21st Oct	Key issues: Biodiversity; Key issues: Waste	Debates	Task 3: Debates
13	28th Oct	Subject summary	No practical classes	

# Assessment

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## Minimum attendance requirements

It is strongly recommended that students attend all lectures. Practical classes, which run during weeks 2 through 12 inclusive, are compulsory.

## Minimum performance requirements

Students need to complete each component at the level specified.

Component	Minimum Standard
Assessment tasks	All assessment tasks must be submitted to 'a satisfactory standard' (see below)
Final Examination	At 200 level: 45%

Students who do not meet the minimum performance requirements as set out in the Subject Outline may be given a Fail grade or TF (Technical Fail) grade on their Academic Transcript. See General Course Rules: <http://www.uow.edu.au/handbook/generalcourserules/index.html>

## Performance grades

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HD	High Distinction	85–100%
D	Distinction	75–84%
C	Credit	65–74%
P	Pass	50–64%
PS	Pass Supplementary	50%
F	Fail (unsatisfactory completion)	0–49%
TF	Technical Fail	No mark recorded

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## Scaling

Marks awarded for any assessment task (including examinations) may be subject to scaling at the end of the session by the Unit Assessment Committee and/or the Faculty Assessment Committee (FAC). Marks will only be scaled to ensure fairness/parity of marking across groups of students. Scaling will not affect any individual student's rank order within their cohort. For more information refer to Assessment Guidelines – Scaling <http://www.uow.edu.au/about/policy/UOW058609.html>

## Submission and Return of Assessment Items

All written assessment tasks must be submitted in hard copy via SMAH Central.

Assessment tasks will be made available for collection within three weeks of submission. Uncollected assignments will be destroyed 21 days after release of marks for that session.

Students are advised to keep an electronic or hard copy of all submitted assessment tasks where possible.

## **Submitting an Assignment at SMAH Central**

Assignments submitted at SMAH Central MUST have a SATS (Student Assignment Tracking System) coversheet attached to the front of the assignment. Instructions for generating a coversheet can be found on the SMAH Central web page.

For an assignment to be successfully submitted at SMAH Central please note the following:

- The coversheet must be signed and dated
- The assignment must have the correct coversheet i.e. the correct subject code and tutorial group (if applicable)
- A legible barcode with all numbers and digits below e.g. UOW20121007656
- Assignments must be submitted by 2.30pm on the due date

If an assignment is submitted to SMAH Central without any of the above we will contact you and advise that you need to return to SMAH Central with the correct coversheet. Your assignment won't be recorded as being submitted until the correct coversheet is attached. This might mean that the assignment is recorded as being submitted late.

## **Late Submission**

All assessment tasks are to be submitted on the due dates as specified in this Subject Outline. Assessment tasks submitted late will be penalised by the deduction of 10% of the maximum possible mark for the assessment task per calendar day or part thereof. Deduction of marks will not result in a negative mark.

## **Academic Consideration including Extensions of Time**

Applications from students for academic consideration should be made only on the grounds of serious or extenuating circumstances. Applications for academic consideration are governed by the University's Student Academic Consideration Policy at <http://www.uow.edu.au/about/policy/UOW058721.html>

Do not assume that an application for special consideration will be automatically granted.

## **Supplementary Assessments**

Supplementary assessment may be offered to students who receive a mark of 48% or 49%, and are otherwise identified as meriting an offer of a supplementary assessment. The form of supplementary assessment will be determined at the time the offer of a supplementary assessment is made. For more information refer to Supplementary Assessment Guidelines <http://www.uow.edu.au/content/groups/public/@web/@gov/documents/doc/uow112335.pdf>.

Note that if you are offered a supplementary examination as the supplementary assessment that you will need to sit the examination in the supplementary examination period.

## Referencing

The Harvard referencing system is used in EESC215 – this is also known as the author-date system due to the order of the information presented. Failure to document *adequately* and *fully* is to ignore scholarly rules – and run the risk of plagiarism.

Please consult the UOW library website for further information:

<http://public01.library.uow.edu.au/refcite/style-guides/html/>

## Plagiarism

Students are responsible for submitting original work for assessment, without plagiarising or cheating, abiding by the University's policy on plagiarism as set out in the University Handbook under the University's Policy Directory. Plagiarism has led to expulsion from the University.

The University's Academic Integrity and Plagiarism Policy, Faculty Handbooks and subject guides clearly set out the University's expectation that students submit only their own original work for assessment and avoid plagiarising the work of others or cheating. Re-using any of your own work (either in part or in full) which you have submitted previously for assessment is not permitted without appropriate acknowledgement. Plagiarism can be detected and has led to students being expelled from the University.

The use by students of any website that provides access to essays or other assessment items (sometimes promoted as 'resources') is extremely unwise. Students who provide an assessment item (or provide access to an assessment item) to others, either directly or indirectly (for example by uploading an assessment item to a website) are considered by the university to be intentionally or recklessly helping other students to cheat. This is considered academic misconduct and students place themselves at risk of being expelled from the University.

<http://www.uow.edu.au/about/policy/UOW058648.html>

# Assessment Tasks

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## Summary of assessment tasks

**Assessment criteria** for all tasks will be available on e-Learning.

**Task 1:** **Annotated bibliography and summary**  
**Due:** Week 4. Friday 2.30pm. SMAH Central (see submission instructions)  
**Weighting:** 15%  
**Description:** 2000 words. 15 peer-reviewed references

**Task 2:** **Essay**  
**Due:** Week 8. Friday 2.30pm. SMAH Central  
**Weighting:** 30%  
**Description:** 3000 words. Minimum 15 peer-reviewed references

**Task 3:** **Debate**  
**Due:** Week 10. Debate summary via Moodle  
Weeks 11 and 12. Debates during prac. class  
**Weighting:** 15%  
**Description:** Debate summary: c.100 words (week 10)  
Debate: 5 minutes per person. + Reference list, including at least 5 peer-reviewed references (weeks 11 & 12)

**Task 4:** **Exam**  
**Due Date:** Exam period. Date to be announced  
**Weighting:** 40%  
**Description:** Three hours. Multiple choice, short answer & long answer questions

## Detailed instructions for assessment tasks

### Task 1: Annotated bibliography and summary

An annotated bibliography is a list of reference materials, accompanied by the publication details and a short review of the article. In this task you will choose one question from the list below, and prepare an annotated bibliography and a short summary of the group of articles.

Choose a question that interests you. Then conduct a literature search, using online databases, to find peer-reviewed, scholarly journal articles. All of the articles you include in your annotated bibliography must be peer-reviewed.

Your annotated bibliography should list your articles in alphabetical order. Each article should be accompanied by the author's name and full bibliographic details – correctly formatted using the Harvard system – followed by a short review of the article. The review should incorporate both *summary* and *critique* of the article, with particular reference to the question you have chosen. Hay (2012, p60) describes summary and critique as follows:

*Summary: a clear indication of the content (and argument) of the piece. Consider including, for example, material on the author's aim, their intended audience, their claim to authority and key arguments they use to support their points.*

*Critique: critical comment on the merits and weaknesses of the publication or on its contribution to the field of study. Some of the things you also might consider evaluating are: appropriateness of the article to its intended audience; whether it is up to date; and, crucially, its engagement with other important literature in the field.*

You should aim for 100 words per article. Note: your review must not simply repeat or re-word the article's abstract. (See information about plagiarism).

Following your annotated bibliography, you should write a short summary of the key themes that emerge from the group of articles. You might also want to include comments on the methods used, the problems or dilemmas encountered in the research, and the areas for further research identified by the authors. In other words, your summary provides a synthesis of the articles you have found. You should aim for approximately 500 words for your summary.

The purpose of this task is to:

- develop your research skills
- learn how to identify key issues in research articles
- learn how to assess key themes that emerge from a group of articles on a given topic
- develop an understanding of the importance of peer-review

#### Helpful sources:

Hay, I. 2012 *Communicating in Geography and the Environmental Sciences*. Oxford University Press, Melbourne. Chapter 3

Library resource pages.

Questions:

1. **What are impacts?** The concept of the environmental 'impacts' of societies is contentious. What are the key arguments in the debate?
2. **Fire.** Fire is often used as a tool of environmental management in traditional Indigenous land management practice. What are the primary historical and contemporary functions of fire for Indigenous peoples in Australia? And what are the effects in terms of environmental impacts?
3. **Extinction.** Earth has undergone a series of major extinction episodes. Discuss the major factors believed to have contributed to megafaunal extinction in Australia. You should focus on one extinction episode.
4. **Agricultural production.** The environmental impacts of agricultural production are complex. What are the key processes linking agricultural practice and the environmental impacts of societies. In your answer you may wish to draw on concepts of commodity chains or 'following the thing'.
5. **Industrialisation.** Identify and discuss three major environmental impacts of industrialisation. Justify your selection of impacts. Discuss the process or processes that led to these impacts. Remember that processes are likely to be complex, and may involved biophysical, technological, economic, political, social and cultural factors.

## Task 2: Essay

This major essay is an independent research and writing task. Choose one of the essay questions below. When preparing your essay, keep the following points in mind:

- This exercise builds on what you learnt in the previous assessment task, in terms of how to approach researching a topic and identifying key issues relevant to your topic.
- Ensure that you carefully structure your essay so that there is a clear and logical line of argument. You might choose to use sub-headings in your essay to provide 'signposts' to your reader, but sub-headings are not essential.
- In your essay you must consult and regularly cite peer-reviewed sources. If you consult non-peer-reviewed sources, these must be in addition to the stipulated number of peer-reviewed sources. All sources must appear in your reference list.
- The essay must include a complete reference list with full citations, correctly formatted.

### Helpful sources:

Hay, I. 2012 *Communicating in Geography and the Environmental Sciences*. Oxford University Press, Melbourne. Chapter 1

Library resource pages.

### Essay questions:

1. **Contemporary food.** Many argue that dominant food production practices are unsustainable. Choose one alternative agricultural production system, and discuss the merits and challenges of its use and further promotion. Alternative agricultural production systems include organic foods, free-range meats, sustainably harvested seafood, community gardens, fair trade, among others.
2. **Sustainable cities.** The concept of 'sustainable cities' has received a great deal of attention in recent years. Choose one city that claims to be implementing novel sustainable practices, discuss the specific strategies they are employing, and assess the relative benefits and limitations of the different approaches.
3. **Climate change.** Observed and predicted outcomes of climate change are diverse. Choose one effect of climate change and discuss first, the causes, and second, the social and cultural implications of this change.
4. **Measuring impacts.** Environmental impacts can be measured in a variety of ways. Discuss the rationale for attempting to measure environmental impacts. Choose one system or method of measuring impacts and discuss its relative benefits and limitations as a tool for understanding environmental impacts of societies. Systems of measurement include environmental footprints, carbon footprints, ecosystem service valuation, etc.
5. **Indigenous land management.** Contemporary environmental management is beginning to incorporate elements of the philosophies and practices of Indigenous land management. Engagement with these principles takes several different forms (e.g. co-management, Indigenous land use agreements, etc.). Choose one site and discuss how principles of Indigenous land management are being employed.

### **Task 3: Debate**

In this task you will build on your knowledge of global environmental issues, and develop skills in oral presentations, group work, and critical thinking. In your groups, you will be assigned a debate question from the list of topics below, and position (affirmative or negative). There are several components to this task, so follow the instructions carefully!

As a group you should research your topic in detail before deciding on your team's overall argument. Break your argument into key points and allocate them to group members, so that each member makes a unique contribution to the debate. Decide on the order of speakers. Remember that in a debate, the first speaker introduces the topic and structure of the team's argument, and the final speaker provides a conclusion to the team's position.

- Each speaker should speak for five minutes (including one minute rebuttal; see below);
- Each speaker should draw on at least five scholarly journal articles to support their case, and submit a reference list on the day of the debate;
- There are individual elements to this task, but there must be continuity within the presentation so that each speaker contributes to a larger argument.

#### Making your rebuttal

In this debate, you will be arguing your position against an opposing team. The opposing team will be given the same topic as you but will argue the contrary position. As in traditional debates speakers will be required to make a rebuttal. However, you will be given time to research and plan your rebuttal in advance. One week before the debates begin, each student must submit a c.100 word summary, which must include:

- an outline of your key argument;
- one of your key information sources;
- a brief explanation of how this information source will be used to support your argument.

This summary will be passed on to the relevant speaker of the opposing team, via Moodle.

Note: The summary forms part of your assessment.

The idea of a rebuttal is to argue why the ideas and source(s) put forward by the opposing team (specifically, the speaker who speaks before you) are flawed or problematic. You should allocate approximately one minute of your five minutes to this task, and your rebuttal may come at any point in your speech. Consider the following:

- research why the key idea presented by the opposing team does not stand-up
- find academic sources that argue the contrary position and present these
- comment on the opposing team's information source. Does the source appropriately support their argument; have they used the source correctly? Are there problems with the source? You might want to consider:
  - Publication year. Is the study outdated? If so, why is this important?
  - Who conducted or funded the study? Could the study have been compromised by funding bodies or other vested interests?
  - Do the methods stand up? Does a single case study present limitations? Are there potential problems with the way data was collected?
  - Do you have concerns about the article content?

Note that the first speaker of the affirmative team will not make a rebuttal, and no speaker will rebut the speech of the final speaker. Instead, these speakers have important roles in introducing and concluding the debate.

The purpose of this task is to:

1. learn about a topic relevant to the subject
2. learn about the relevance and purpose of scholarly literature; recognise that there are bodies of literature that form conversations (or discourses) on particular issues
3. learn how to think critically and raise questions about scholarly literature
4. practice your debating and oral presentation skills
5. develop your skills in group work

Debate topics:

1. **Nuclear energy** is an outmoded idea.
2. **Desalination** is an excellent option for providing secure water for Australia.
3. **Wind energy** is the best alternative energy source currently available.
4. Big **cities** are more sustainable than small cities.

#### **Important assessment details:**

This assessment task comprises several components, all of which must be completed by the due dates.

One week before debates begin (week 10) each student must submit a debate summary. Summaries must be submitted via Moodle on or before the day of your regular prac. class.

On the day of your debate (week 11 or 12) each student must submit a list of at least five peer-reviewed references that have informed their argument. This list must be submitted in hard copy to the practical demonstrator.

#### **Task 4: Exam**

The final exam will be held in the end of year examination period; date to be announced. The exam will be three hours long, and worth 40% of your final grade. It will take the form of multiple choice questions, short answer and long answer questions.

Please make yourself aware of minimum performance requirements for the final exam.

## Recommended Readings

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This list presents the minimum required readings for this subject, organised on a week-by-week basis. You will need to read more broadly to undertake the assessment tasks and complete the subject. An additional source that you will find useful throughout the subject is the Dictionary of Human Geography. Several editions exist, by different publishers.

### General readings

Goudie, A. 2013 *The Human Impact on the Natural Environment: past, present and future*, Blackwell. 303.4/16

Hay, I. 2012 *Communicating in Geography and the Environmental Sciences*, 4th Edition. Melbourne, Oxford University Press. 378.17/39

### Week 1 What are 'impacts'?

Head, L. 2008 Is the concept of human impacts past its use-by date? *The Holocene* 18(3) 373-377

Goudie, A. 2006 *The Human Impact on the Natural Environment: Past, Present and Future*. 6<sup>th</sup> ed. Blackwell. 303.4/16 – Chapter 1

### Week 2 First human impacts

Goudie, A. 2006 *The Human Impact on the Natural Environment: Past, Present and Future*. 6<sup>th</sup> ed. Blackwell. 303.4/16 – Chapters 2 & 3

Kershaw *et al.* 2002 "A history of fire in Australia" in *Flammable Australia: the fire regimes and biodiversity of a continent*. Edited by Bradstock, R.A., Williams, J.E. and Gill, M.A. Cambridge, Cambridge University Press. 577.2/3 pp. 3-25

Miller, G.H., Magee, J.W., Johnson, B.J., Fogel, M.L., Spooner, N.A., McCulloch, M.T. and Ayliffe, L.K. 1999 Pleistocene extinction of *Genyornis newtoni*: human impact on Australian megafauna. *Science* 283(5399): 205-208

Miller, G.H., Fogel, M.L., Magee, J.W., Gagan, M.K., Clarke, S.J. and Johnson, B.J. 2005 Ecosystem collapse in Pleistocene Australia and a human role in megafaunal extinction. *Science* 309 (5732): 287-290

Roberts, R.G., Flannery, T.F., Ayliffe, L.K., Yoshida, H., Olley, J.M., Prideaux, G.J., Laslett, G.M., Baynes, A., Smith, M.A., Jones, R. and Smith, B.L. 2001 New ages for the last Australian megafauna: continent-wide extinction about 46 000 years ago. *Science* 292(5523): 1888-1892

### Week 3 Early agriculture and Contemporary food production

Atchison, J., Head, L. & Gates, A. 2010 Wheat as food, wheat as industrial substance; comparative geographies of transformation and mobility. *Geoforum*, 41: 236-246

Crutzen, P.J. and Steffen, W. 2003 How long have we been in the Anthropocene era? *Climatic Change* 61(3): 251-257

Denham, T.P., Haberle, S.G., Lentfer, C., Fullagar, R., Field, J., Therin, M., Porch, N. and Winsborough, B. 2003 Origins of agriculture at Kuk Swamp in the highlands of New Guinea. *Science* 301(5630): 189-193

Diamond J. 2002 Evolution, consequences and future of plant and animal domestication. *Nature* 418: 700-707

Guthman, J. 2007 'Commentary on teaching food: Why I am fed up with Michael Pollan et al.' *Agriculture and Human Values* 24: 261–264.

Pimentel, D. & Pimentel, M. 2008 *Food, Energy, and Society*. 3rd Edition. CRC Press, Boca Raton – Chapter 1

#### **Week 4 Early cities and Industrialisation**

Atalay S. and Hastorf C.A. 2006 Food, Meals, and Daily Activities: Food Habitus at Neolithic Çatalhöyük. *American Antiquity*, 71(2)(April 2006) pp 283-319

Goudie, A. 2006 *The Human Impact on the Natural Environment: Past, Present and Future*. 6<sup>th</sup> ed. Blackwell. 303.4/16 – Chapters 4 and 5.

Gregory D. 1994 Industrial Revolution, In Johnston R.J, Gregory D. and Smith D.M. eds. *The Dictionary of Human Geography*, Second Edition. Blackwell, Oxford, pp. 281-285

Simmons, I.G. 1996 *Changing the Face of the Earth*. Oxford, Basil Blackwell. 304.2/167 – Chapters 6 and 7

#### **Week 5 Modernity & urbanisation and Contemporary urban environmental issues**

Australian Government, Department of Environment, Water, Heritage and the Arts, State of the Environment Report (SOE) 2006. – Chapter: Human settlements  
<http://www.environment.gov.au/soe/2006/index.html>

Harvey D. 1990 *The Condition of Postmodernity* Blackwell, Malden – Part 1

Kaika, M. 2006 Dams as symbols of modernization: the urbanization of nature between geographical imagination and materiality *Annals of the Association of American Geographers* 96(2) 276–301

Newman, P. and Jennings, I. 2008 *Cities as sustainable ecosystems: principles and practices*. Washington, Island Press. 307.76/222 – Intro, Chapters 1 & 5

#### **Week 6 Climate change**

'The Science of Climate Change: Questions and Answers', Australian Academy of Science, Canberra (Available online: <http://www.science.org.au/policy/climatechange.html>)

*The Garnaut Climate Change Review Final Report*, released 31st May 2011  
(Available online: [www.garnautreview.org.au](http://www.garnautreview.org.au))

Goudie, A. 2006 *The Human Impact on the Natural Environment: Past, Present and Future*. 6<sup>th</sup> ed. Blackwell. 303.4/16 – Ch7 pp. 196-205 (greenhouse effect revision), Ch8 (overview of future changes, NB: written pre IPCC 2007), Ch9 (overview of future coastal changes).

Head, L 2010 'Cultural ecology: adaptation – retrofitting a concept?' *Progress in Human Geography* 34(2) pp234-242

IPCC Fourth Assessment Report, Working Group II Report "Impacts, Adaption and Vulnerability" [http://www.ipcc.ch/publications\\_and\\_data/publications\\_and\\_data\\_reports.htm](http://www.ipcc.ch/publications_and_data/publications_and_data_reports.htm)  
363.73874/25

IPCC Fourth Assessment report, Working Group III, Mitigation of Climate Change  
[http://www.ipcc.ch/publications\\_and\\_data/publications\\_and\\_data\\_reports.htm](http://www.ipcc.ch/publications_and_data/publications_and_data_reports.htm)

## **Week 7 Sustainability and the city**

Australian Conservation Foundation 2010 *Sustainable Cities Index*, ACF, Sydney

Gibson, C, Waitt, G, Head, L and Gill, N 2011 'Is It Easy Being Green? On the Dilemmas of Material Cultures of Household Sustainability', in Lane, R and Gorman-Murray, A (eds) *Material Geographies of Household Sustainability*, Ashgate, Aldershot, pp19-33

Vallance, S and Perkins, H 2010 'Is another city possible? Towards an urbanised sustainability', *City* 14 pp448-456

## **Week 8 Urban agriculture and Indigenous land management**

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## **Week 9 Measuring impacts and Managing impacts**

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## **Week 10 Rethinking impacts**

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## **Week 11 Key issues: Water; Key issues: Food**

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## **General Advice**

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Students should refer to the Faculty of Science, Medicine and Health website for information on policies, learning and support services and other general advice.

### **Use of Electronic Devices in Timetabled Activities**

Ensure that mobile phones are turned off or turned to silent before timetabled activities.

Electronic devices including mobile phones and portable MP3 players should not be accessed during timetabled activities unless otherwise advised.